ABSTRACT

The present invention deals with a double-cone device that produces enhanced suction, pressure amplification and reduced noise. The enhancement is achieved is by using a continuous geometry for the two frustroconical sections of the double-cone device. Further, a plurality of holes on the exit cone is used to suck the material into the device. Continuous geometry results in a stable flow profile that leads to reduced noise and enhanced amplification. Holes increase the suction force since they can be placed very close to the orifice. Further enhancements are also achieved by choosing the appropriate range of entry cone and exit cone angles.

(Fig. 3)